

FIG. 1

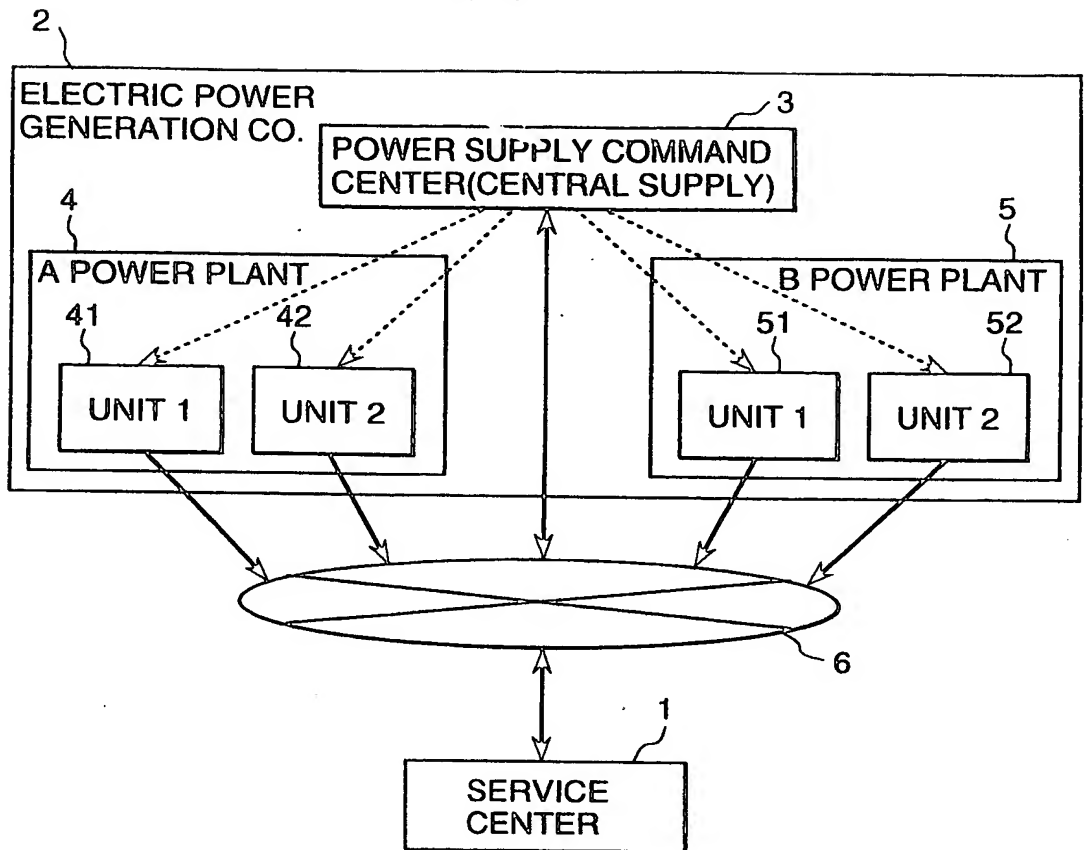


FIG. 2

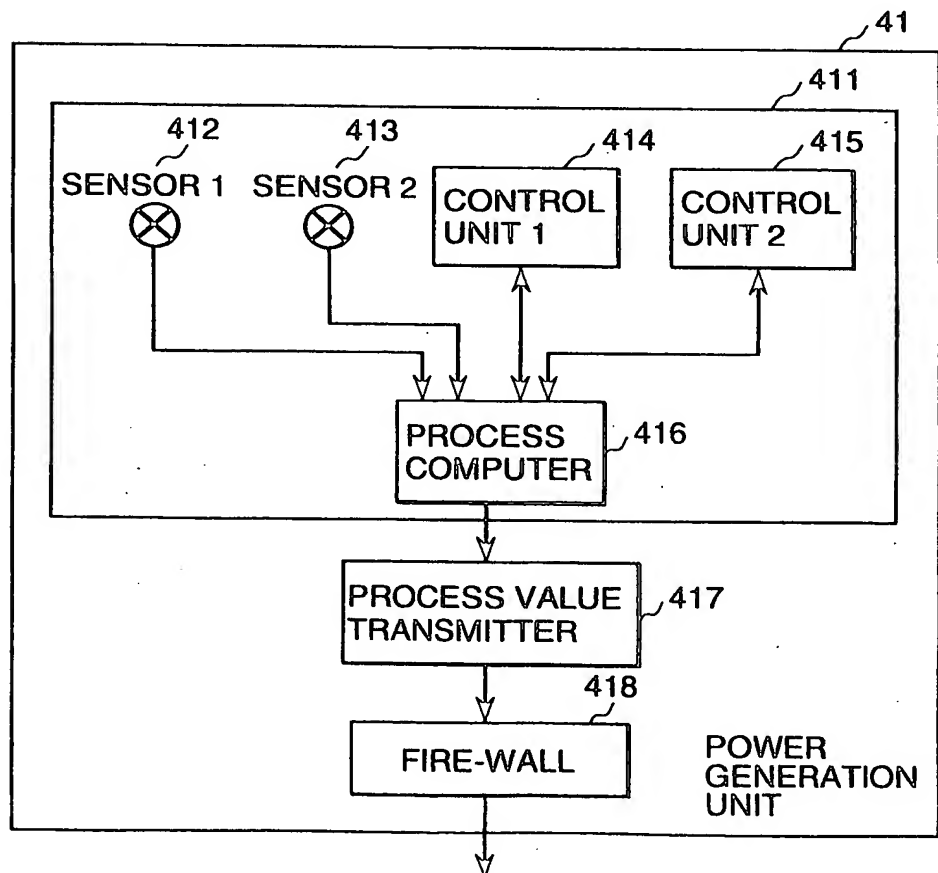


FIG. 3

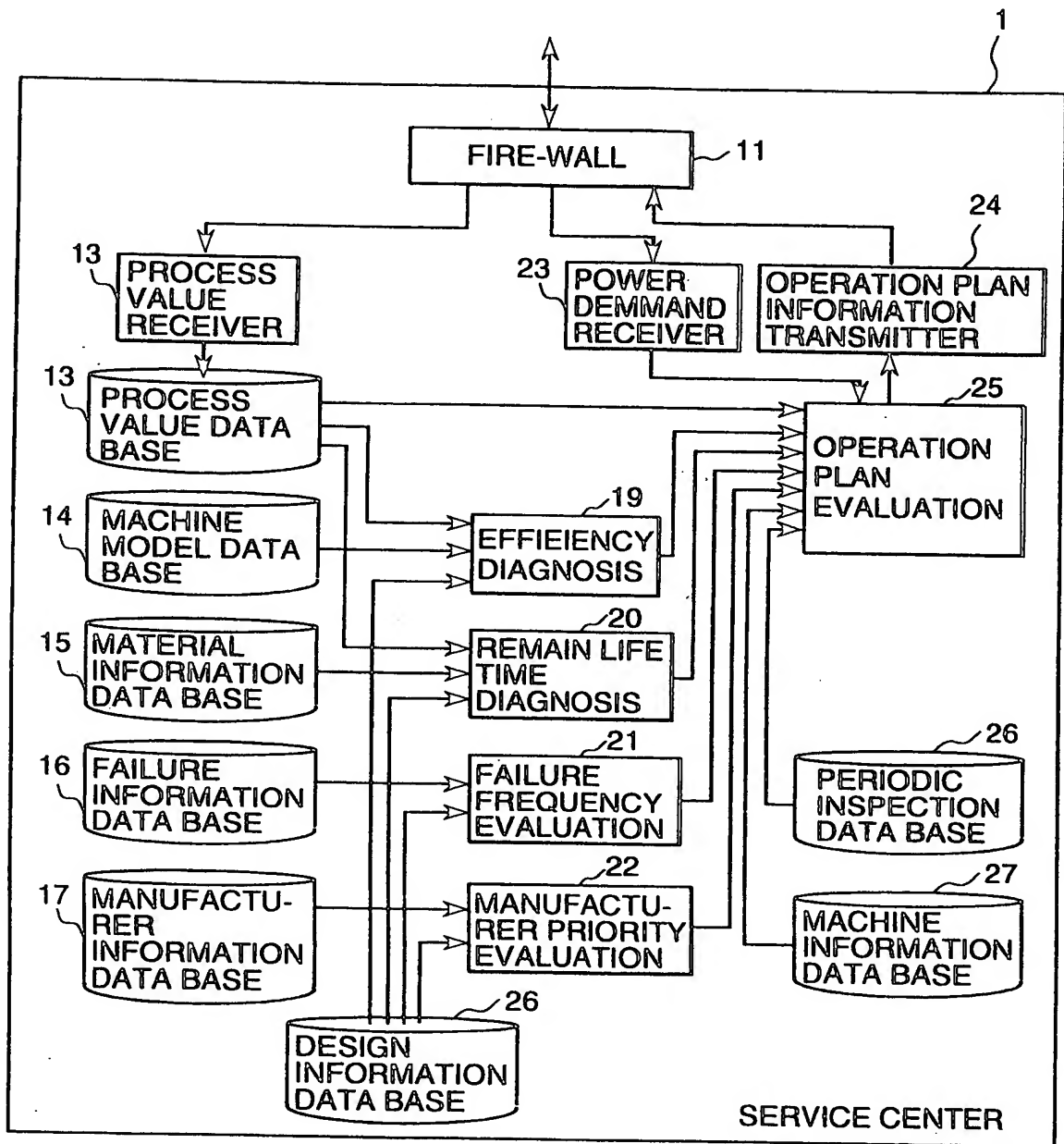


FIG. 4

PROCESS VALUE DATA BASE						
POWER PLANT	UNIT	PROCESS No.	PROCESS VALUE			
		TIME	12:00:20	12:00:19	12:00:18	...
POWER PLANT A	UNIT 1	PID001	100.0	99.0	99.5	
		PID002	120.0	119.0	118.0	
		PID003	100.0	100.0	100.0	
		⋮				
	UNIT 2					

FIG. 5

DESIGN INFORMATION DATA BASE			
POWER PLANT	UNIT	MACHINE (MANUFACTURER/TYPE)	PARTS (MANUFACTURER/TYPE)
POWER PLANT A	UNIT 1	GAS TURBINE(A Co./GT001)	COMBUSTOR(B Co./CB003)
			TURBINE(A Co./TB001)
			COMPRESSOR(A Co./CP001)
		GENERATOR(B Co./GN005)	
			⋮

FIG. 6

PART	MANUFATURER/ TYPE	MACHINE MODEL	INPUT OUTPUT SPECIFICATION
COMPRESSOR	A Co./CP001	MODEL CP001	INPUT:PID010,PID015, · · OUTPUT:PID030,PID035, · ·
	B Co./CP001	MODEL CP003	
	⋮		
TURBINE	A Co./ TB001		

FIG. 7

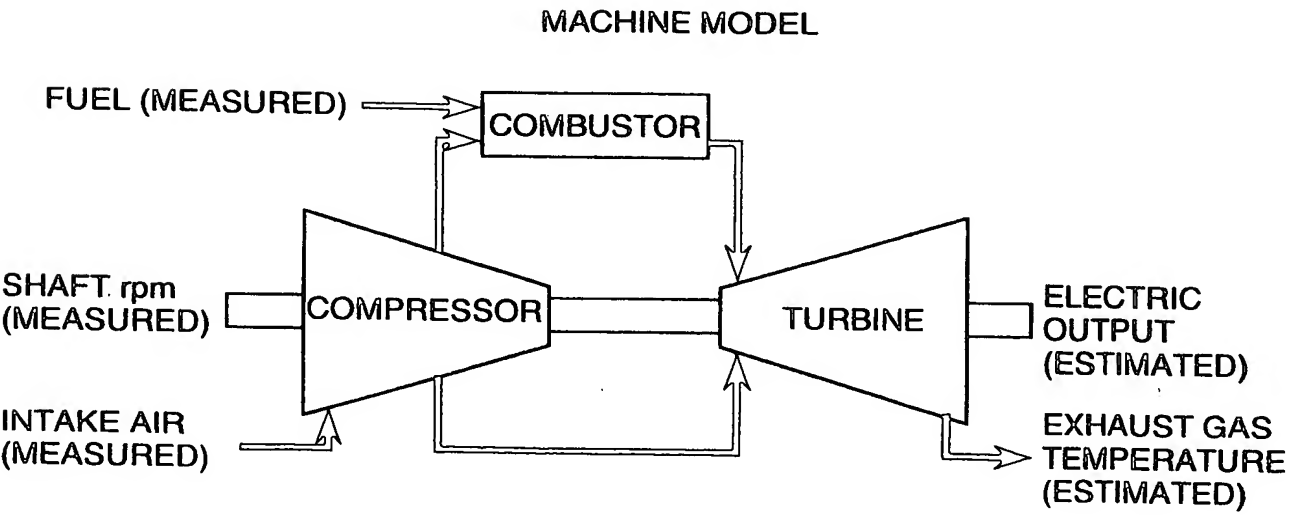


FIG. 8

PERFORMANCE DETERIORATION JUDGEMENT  
MAKING USE OF MACHINE MODEL

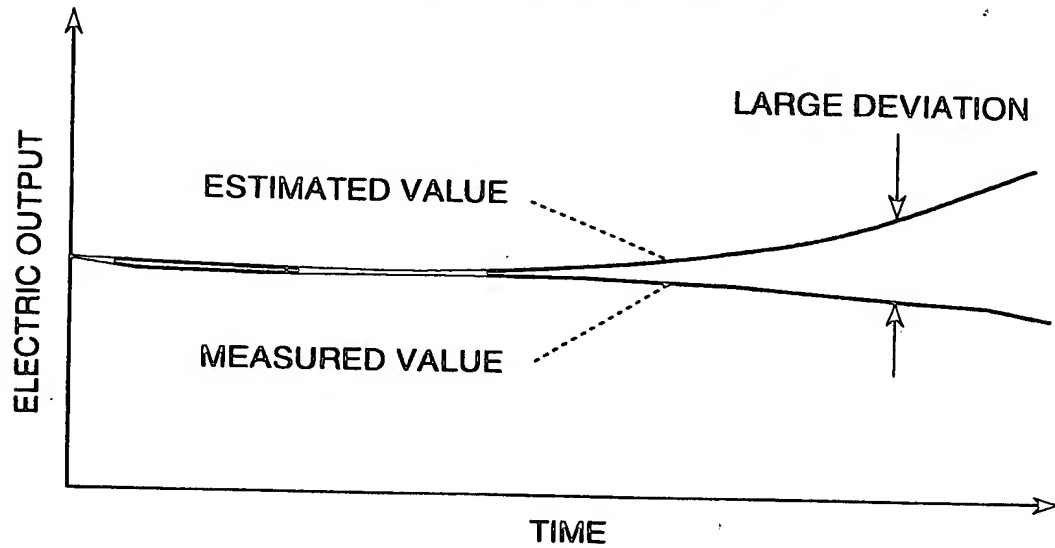


FIG. 9

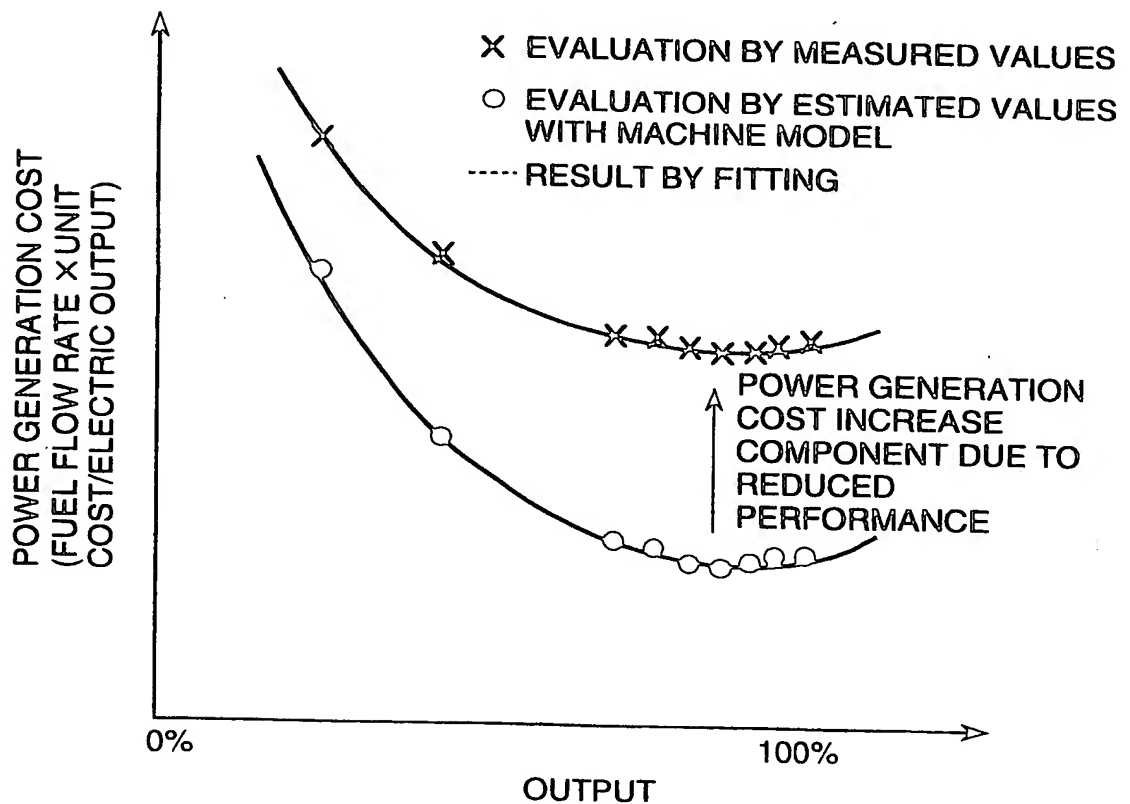


FIG. 10

## PERIODIC INSPECTION INFORMATION DATA BASE

		1999												2000											
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
A PLANT																									
	UNIT 1			<input type="checkbox"/>												<input type="checkbox"/>									
	UNIT 2								<input type="checkbox"/>												<input type="checkbox"/>				
B PLANT																									
	UNIT 1				<input type="checkbox"/>												<input type="checkbox"/>								
	UNIT 2									<input type="checkbox"/>													<input type="checkbox"/>		
⋮																									

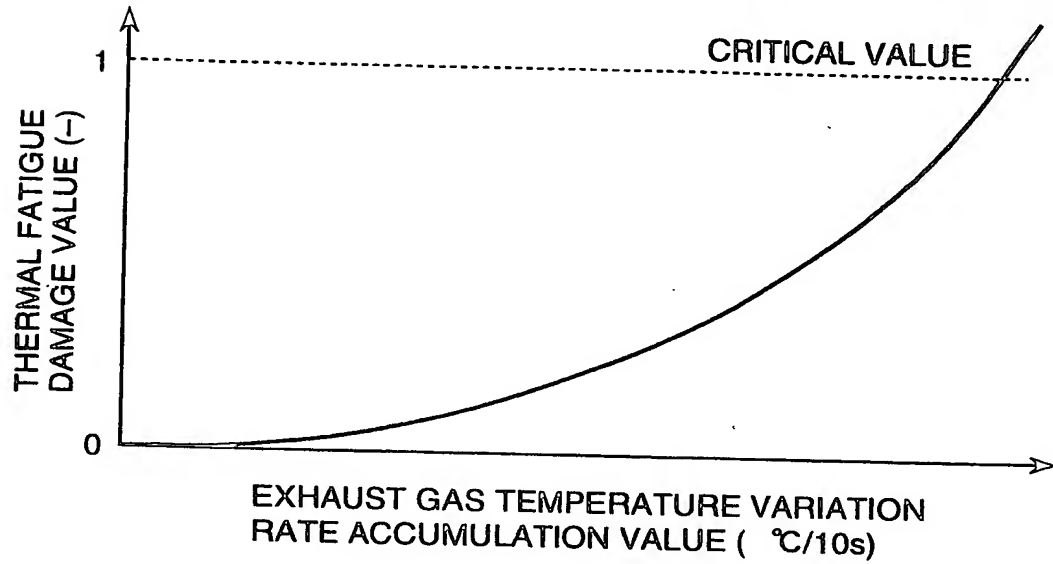
☐ FINISHED    ☐ PLANNED

FIG. 11

## MACHINE INFORMATION DATA BASE

MACHINE/ PARTS	MANUFACTURER/ TYPE	PURCHASED PRICE	DAYS FOR INSTALLATION
GAS TURBINE	A Co./GT001	20000M	10 DAY
	B Co./GT003	16000M	14 DAY
	C Co./GT001	24000M	8 DAY
	⋮	⋮	⋮
⋮	⋮	⋮	⋮

FIG. 12

STRUCTURE OF MATERIAL INFORMATION DATA BASE  
THERMAL FATIGUE DAMAGE DATA [GAS TURBINE (GT001)]

## CREEP DAMAGE DATA [GAS TURBINE (GT001)]

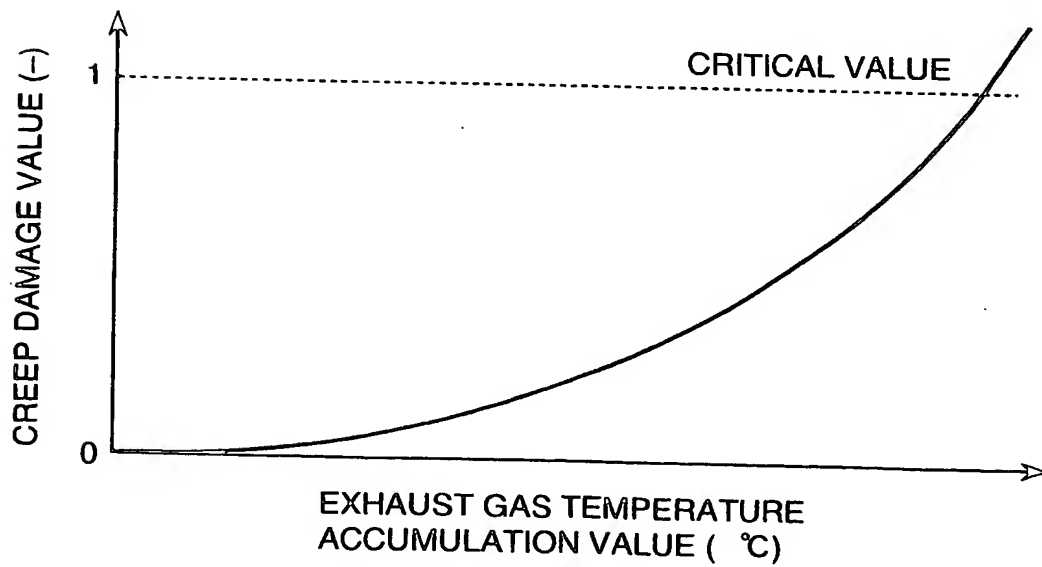


FIG. 13

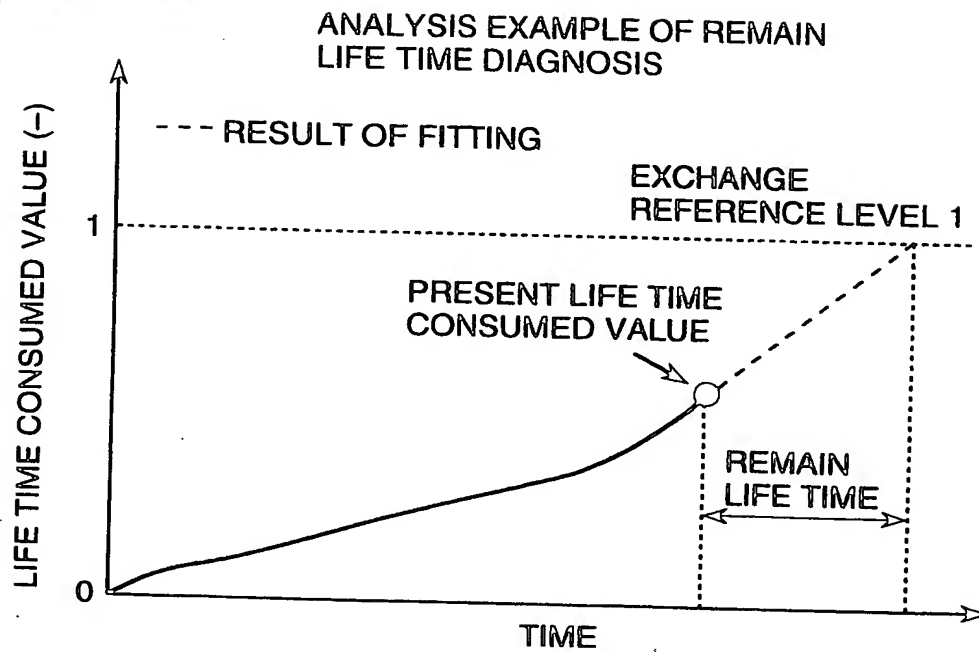


FIG. 15

FAILURE INFORMATION DATA BASE

DATE OF FAILURE OCCURRED	PLANT	UNIT	PARTS (MANUFACTURER/TYPE)	DATE OF PREVIOUS REPAIR, EXCHANGE	CAUSE OF FAILURE
2000.9.10	PLANT A	UNIT 1	VALVE (A Co./VL0010)	1992.3.20	PACKING DETERIORATION
1998.6.5	PLANT B	UNIT 2	PUMP (B Co./PU032)	1990.4.1	COUPLING BREAKAGE
⋮	⋮	⋮	⋮	⋮	⋮

FIG. 16

MANUFACTURER INFORMATION DATA BASE

MANUFACTURER	RELIABILITY	MAINTENANCE CAPACITY
A Co.	A	A
B Co.	A	B
C Co.	B	B
	⋮	⋮



FIG. 14

FLOW OF OPERATION AND MAINTENANCE PLANNING  
MAKING USE OF REMAIN LIFE TIME DIAGNOSIS RESULT

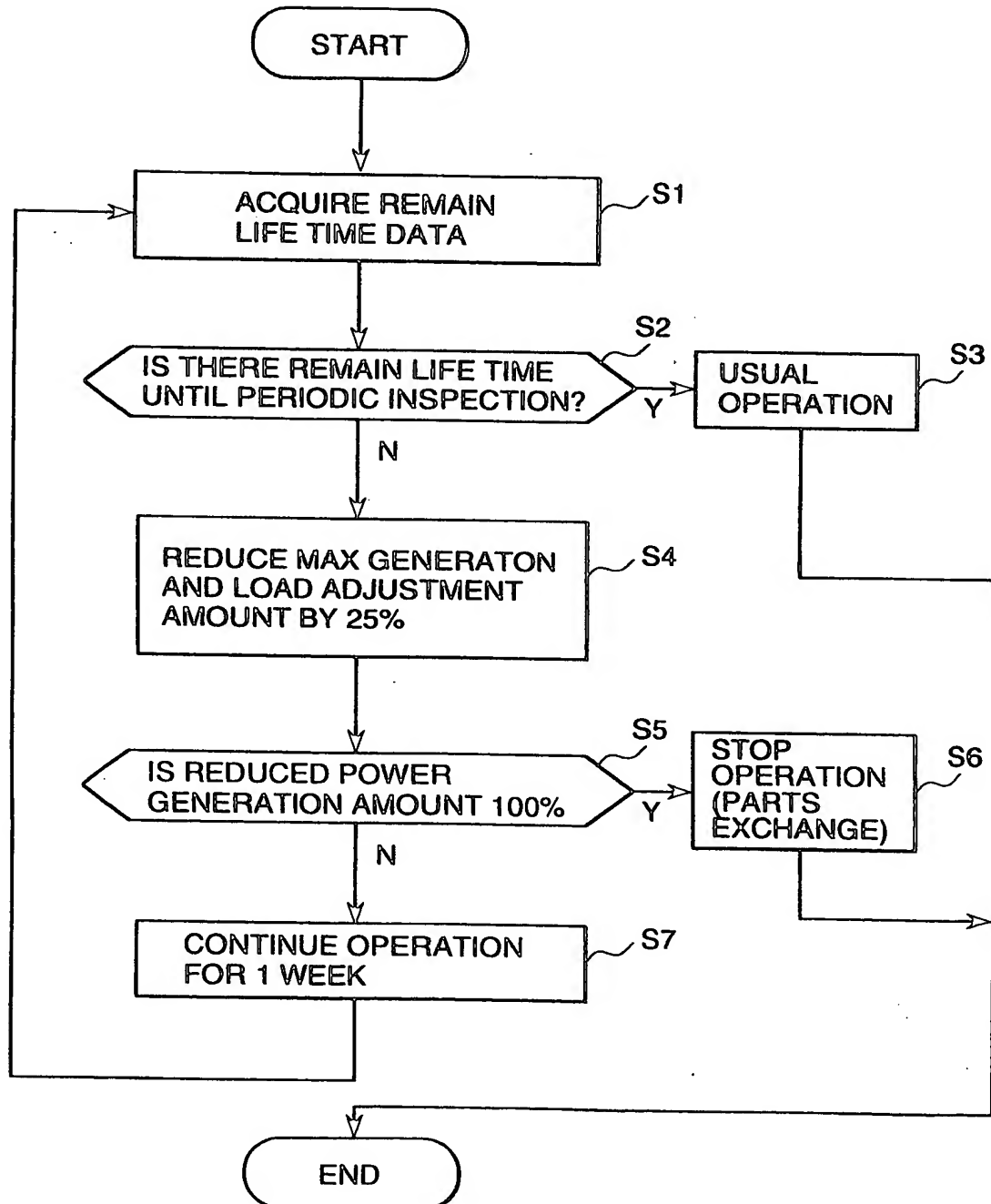


FIG. 17

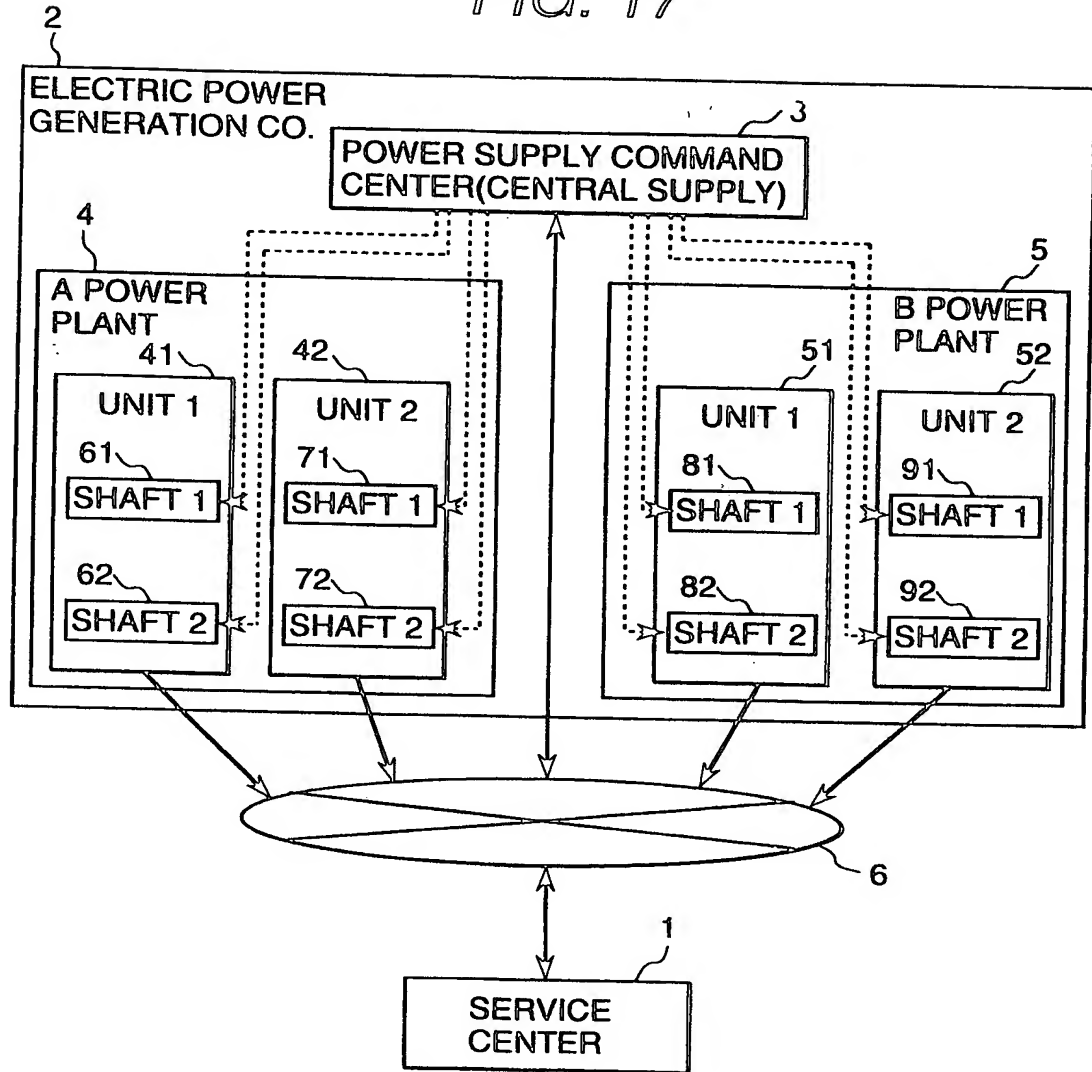


FIG. 18

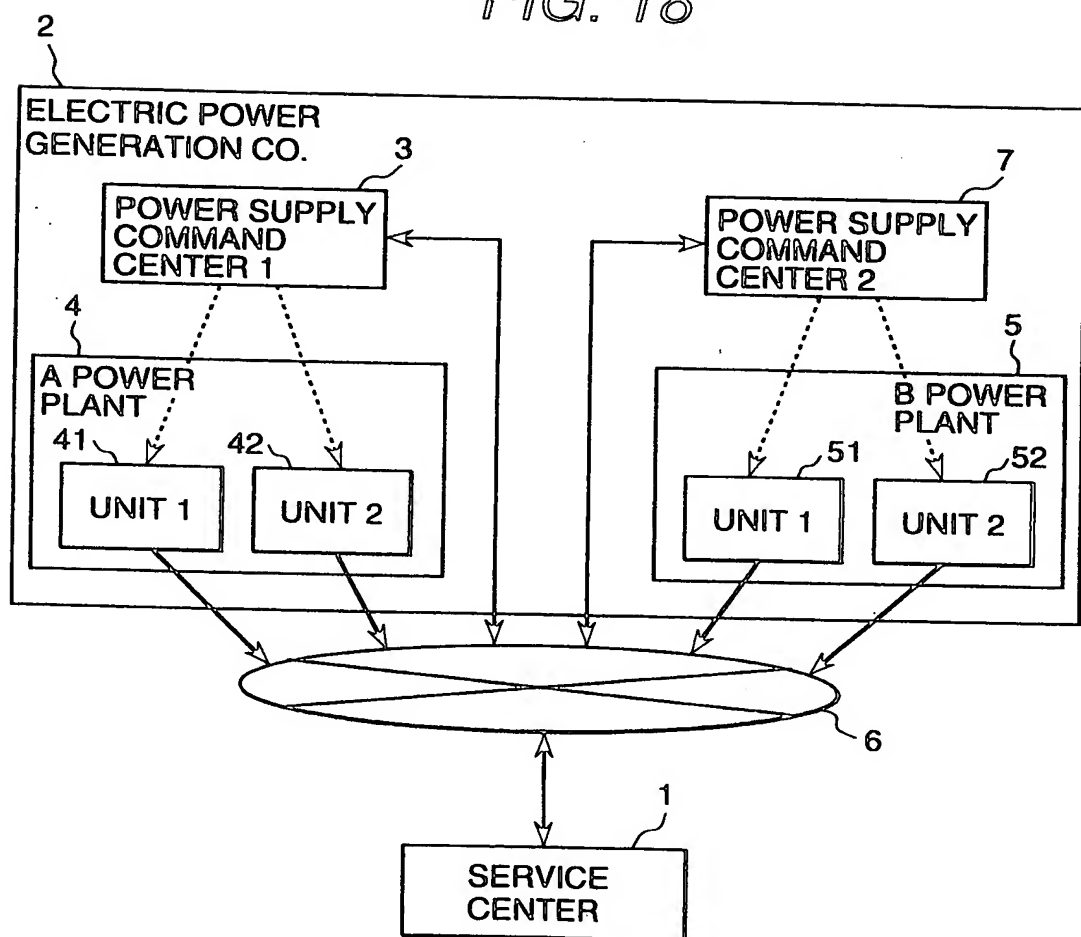


FIG. 19

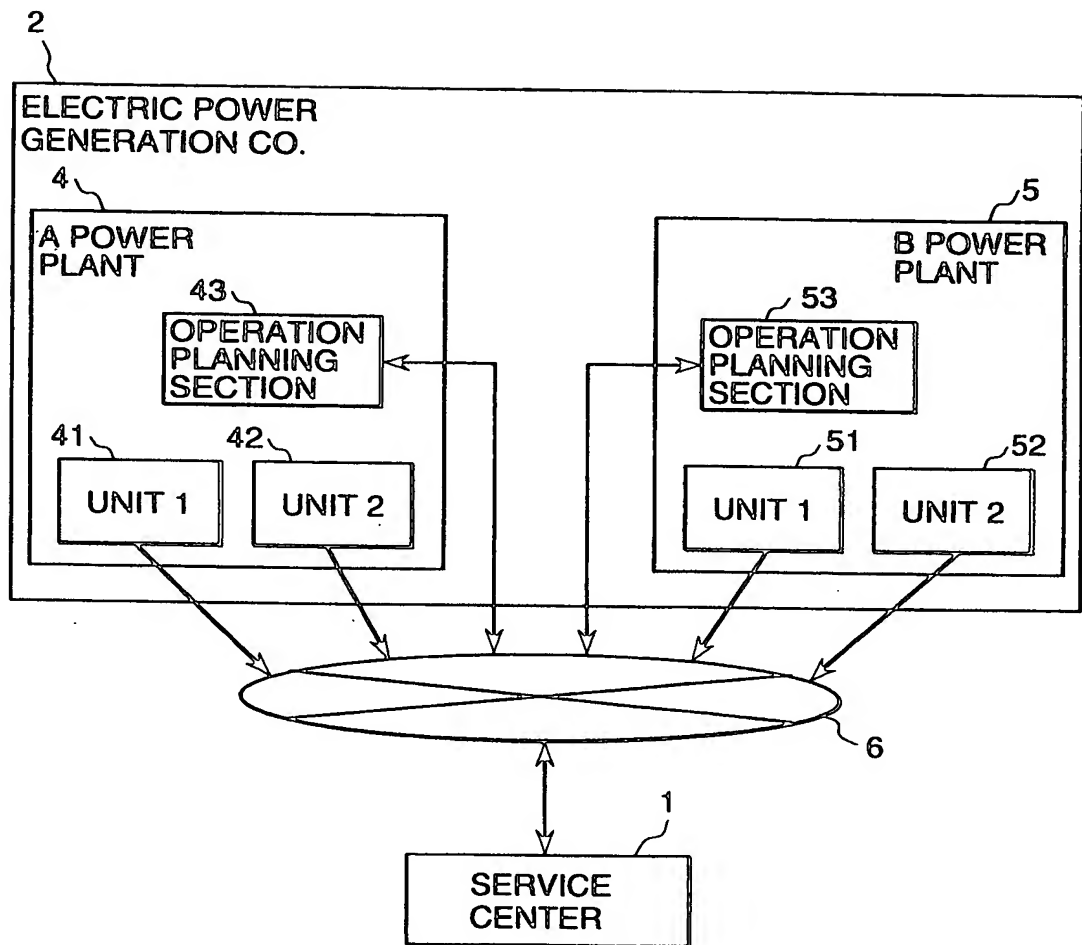


FIG. 20

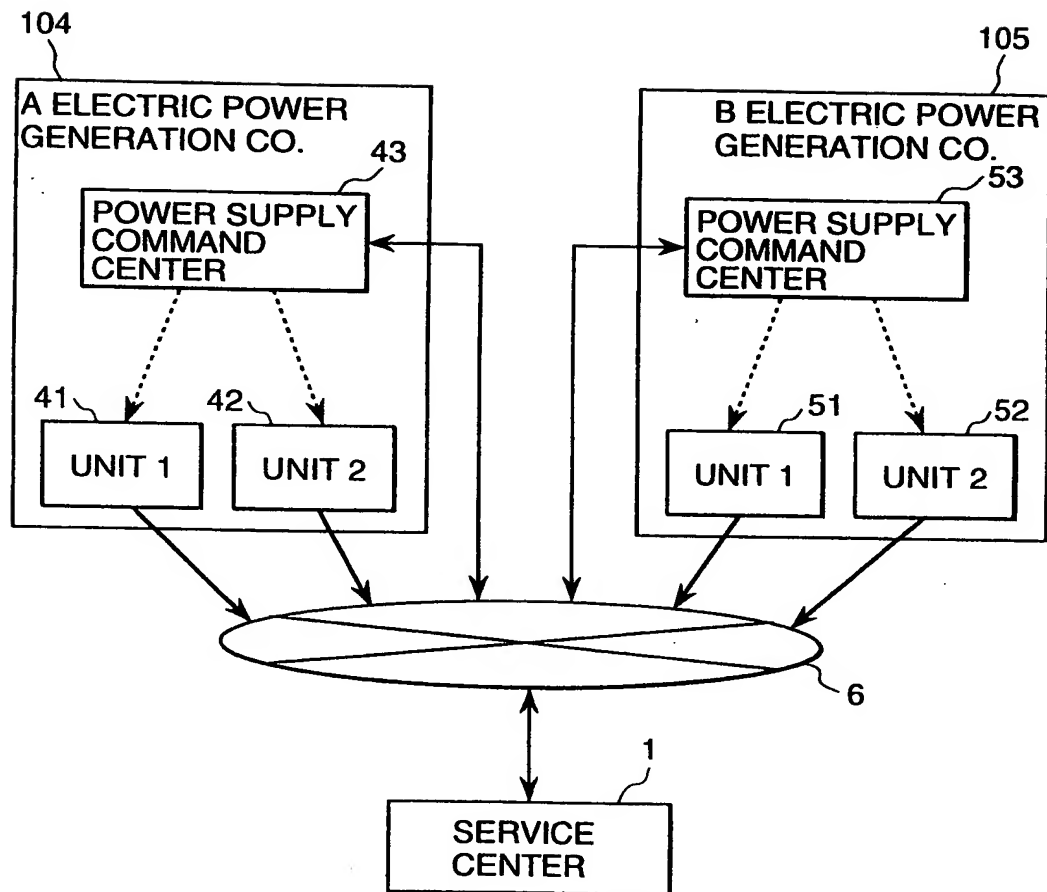


FIG. 21

## PROCESS VALUE DATA BASE

POWER GENERATION Co.	UNIT	PROCESS No.	PROCESS VALUE			
		TIME	12:00:20	12:00:19	12:00:18	...
A POWER GENERATION Co.	UNIT 1	PID001	100.0	99.0	99.5	
		PID002	120.0	119.0	118.0	
		PID003	100.0	100.0	100.0	
		:				
	UNIT 2					

FIG. 22

## DESIGN INFORMATION DATA BASE

POWER GENERATION Co.	UNIT	MACHINE (MANUFATURER/TYPE)	PARTS (MANUFACTURER/TYPE)
A POWER GENERATION Co.	UNIT 1	GAS TURBINE(A Co./GT001)	COMBUSTOR(B Co./CB003)
			TURBINE(A Co./TB001)
			COMPRESSOR(A Co./CP001)
		GENERATOR(B Co./GN005)	
			:

FIG. 23

## PERIODIC INSPECTION INFORMATION DATA BASE

		1999												2000											
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
A POWER GENERATION Co.																									
	UNIT 1																								
	UNIT 2																								
B POWER GENERATION Co.																									
	UNIT 1																								
	UNIT 2																								
⋮																									

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FIG. 24

## FAILURE INFORMATION DATA BASE

DATE OF FAILURE OCCURRED	POWER GENERATION Co.	UNIT	PARTS (MANUFACTURER/ TYPE)	DATE OF PREVIOUS REPAIR, EXCHANGE	CAUSE OF FAILURE
2000.9.10	A POWER GENERATION Co.	UNIT 1	VALVE (A Co./VL0010)	1992.3.20	PACKING DATRERIORATION
1998.6.5	B POWER GENERATION Co.	UNIT 2	PUMP (B Co./PU032)	1990.4.1	COUPLING BREAKAGE
⋮	⋮	⋮	⋮	⋮	⋮

FIG. 25

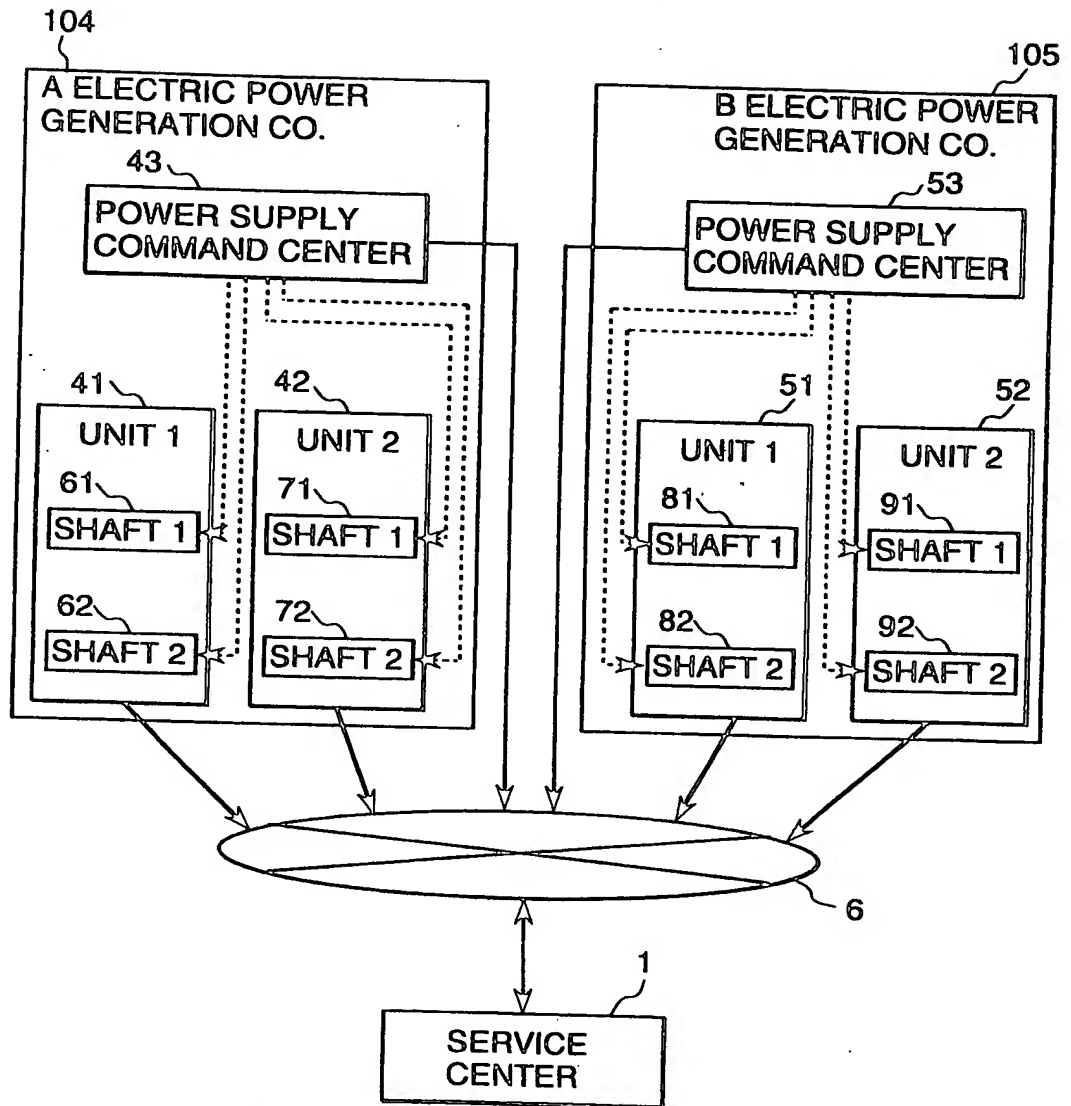




FIG. 26

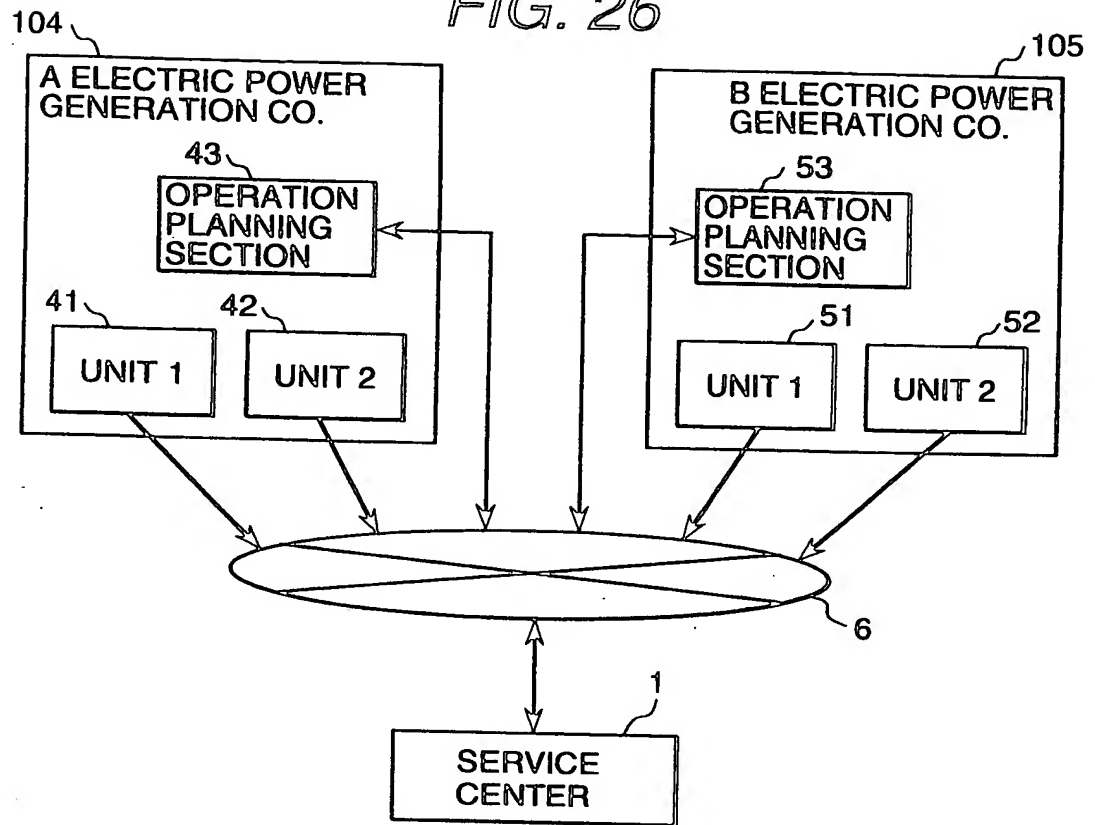


FIG. 27(a)

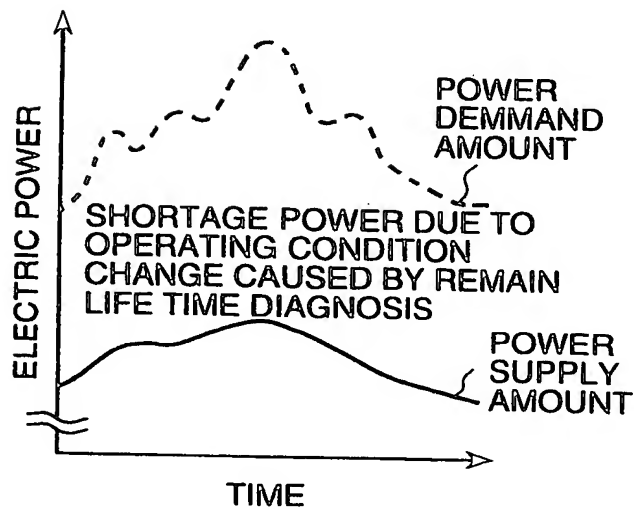


FIG. 27(b)

